



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,944	07/14/2000	Kazuyo Saito	43890-427	6874

7590 12/12/2002

McDermott Will & Emery
600 13th Street NW
Washington, DC 20005-3096

EXAMINER

NGUYEN, HA T

ART UNIT	PAPER NUMBER
----------	--------------

2812

DATE MAILED: 12/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/616,944

Applicant(s)

SAITO ET AL.

Examiner

Ha T. Nguyen

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 21-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/233,936.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 29 is objected to for containing the following informalities: in lines 5-7, substitution of "electrode forming said solid organic conductive material is immersed in a soluble polymer solution, and then it is dried and a residual dry polymer of said " with --electrode having said solid organic conductive material is immersed in a soluble polymer solution and then dried thereby a residual dry polymer of said " is suggested for clarity and correctness.

Claim Rejections - 35 USC § 112

2. Claims 21-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 21, lines 7-9, recites "disposing an electrode between said positive electrode having said solid organic conductive material and said negative electrode", there is not enough support for this limitation in the claim. It appears that a separator is between the two electrodes, not another electrode.

Claims 22-32 variously depend from claim 21, they are rejected for the same reason.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites the limitation "said electrolyte" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103[®] and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 21-23, 25-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. (JP Patent application 64-90517, hereinafter "Kawano") in view of Kobayashi et al. (U.S. Patent 5972052, hereinafter "Kobayashi").

[Claim 21] Referring to Fig. 1 and related translated text, Kawano discloses a method of fabricating an electrolytic capacitor, comprising the steps of: (a) fabricating a positive electrode ; (b) fabricating a negative electrode ; and (d) disposing a separator between said positive electrode and said negative electrode (See "Prior art" section). It also discloses the forming of an organic conductive material on the separator paper (see page 3, lines 6-20). But it does not disclose expressly (c) forming said solid organic conductive material on the surface of said positive electrode. However, the missing limitation is well known in the art because Kobayashi discloses the forming of organic solid electrolyte on the positive electrode (See col. 6, lines 5-36). A person of ordinary skill is motivated to modify Kawano with Kobayashi to obtain capacitor of high reliability.

[Claim 22] Kawano also discloses wherein said solid organic conductive material is at least one of organic semiconductor and conductive polymer (See ex. 4)

[Claim 23] Kobayashi also discloses wherein a solution containing a polymerizable monomer is bonded to the surface of said positive electrode, and said bonded monomer is polymerized to form said solid organic conductive material (See col. 6, lines 5-36);

[Claims 25 and 32] wherein a solution containing at least one monomer of is applied on the surface of said positive electrode, and said applied monomer is polymerized to form said solid organic conductive material (See col. 6, lines 5-36);

[Claim 26] wherein a solution containing a polymerizable monomer is applied on the surface of said positive electrode, and said applied monomer is chemically polymerized in liquid phase to form said solid organic conductive material (See col. 6, lines 5-36);

[Claim 27] wherein said polymerizable monomer is brought into contact with the surface of said positive electrode in a vapor-phase atmosphere of said polymerizable monomer, and polymerized in vapor phase to form said solid organic conductive material (See col. 6, lines 5-36);

[Claim 28] wherein said positive electrode is immersed in a liquid having a polymerizable monomer, said monomer is electrolytically polymerized to form said solid organic conductive material on the surface of said positive electrode (See col. 6, lines 5-36).

[Claim 29] Kawano also discloses the immersing the positive electrode in monomer solution of electrolyte (see page 4, lines 4-14). But it does not disclose expressly wherein said solid organic conductive material of at least one of organic semiconductor and conductive polymer is formed, then said positive electrode having said solid organic conductive material is immersed in a soluble polymer solution and then dried thereby a residual dry polymer of said soluble polymer solution is formed on the surface of said solid organic conductive material. However, the missing limitations are well known in the art because Kobayashi discloses these features (See col. 3, lines 37-52 and col. 5, lines 12-23) .

[Claim 30] Kawano also discloses wherein said solid organic conductive material is in a state swollen in an electrolyte (See page 4 , Ex. 4).

Therefore, it would have been obvious to combine Kawano with Kobayashi to obtain the invention as specified in claims 21-23, 25-30, and 32 .

5. Claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano in view of Kobayashi , as applied to claims 21-23, 25-30, and 32 above, and further in view of Inoue et al. (U.S. Patent 6052273, hereinafter "Inoue").

The combined teaching of Kawano and Kobayashi discloses substantially the limitations of claims 24 and 31 , as shown above.

Art Unit: 2812

But it does not disclose expressly wherein said solid organic conductive material has at least one organic semiconductor of 7,7,8,8-tetracyanoquinodimethane complex and its derivatives.

However, the missing limitation is well known in the art because Inoue discloses this feature (See col. 1, lines 12-32).

A person of ordinary skill is motivated to modify Kawano and Kobayashi with Inoue to use a conventional material for the same purpose .

Therefore, it would have been obvious to combine Kawano and Kobayashi with Inoue to obtain the invention as specified in claims 24 and 31.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ha Nguyen whose telephone number is (703)308-2706 . The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM, except the first Friday of each bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (703) 308-3325. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Ha Nguyen
Primary Examiner
12 - 8 - 02